

ACC NR: AP6018943

It is concluded that Ti and Cr atoms displace Al atoms, and that W displaces both Ni and Al atoms in the compound  $Ni_3Al$ . Orig. art. has: 2 tables, 1 graph, and 2 equations.

SUB CODE: 11/ SUBM DATE: 02Aug65/ ORIG REF: 010/ OTH REF: 007

Card 3/3

(A)

SOURCE CODE: UR/0000/66/000/000/0064/0071

AUTHOR: Arbuzov, M. P.; Kachkovskaya, E. T.; Khayenko, B. V.

ORG: none

TITLE: Study of the electronic structure and atomic structure of TiC and TiO

SOURCE: AN BSSR. Institut fiziki tverdogo tela i poluprovodnikov. Khimicheskaya svyaz' v poluprovodnikakh i termodinamika (Chemical bond in semiconductors and thermodynamics). Minsk, Nauka i tekhnika, 1966, 64-71

TOPIC TAGS: titanium compound, oxide, carbide, chemical bonding, x ray diffraction study, atomic structure, electron density

ABSTRACT: In view of the little attention paid in the past to the state of the titanium, carbon, oxygen, and nitrogen atoms in TiC, TiO, and TiN, and consequently to the nature of the chemical bond in these compounds, the authors carried out an x-ray diffraction investigation to determine the atomic scattering factors of Ti, C, and O in TiC and TiO and the distribution of the electron density in the crystal lattice of titanium carbide and oxide. The study was made in filtered Mo-K $\alpha$  radiation, using a scintillation procedure for recording the reflexes. The results showed that at  $\sin\theta/\lambda$  ( $\theta$  - spectral angle,  $\lambda$  - wavelength), the atomic scattering factors of Ti and C in TiC and of O in TiO deviate from the theoretical values, indicating that the atomic factors at these angles vary with variation of the state of the atoms. These variations point to specific changes in the distribution of the electron density in

Card 1/2

UDC: 541.57

ACC NR: AT7003877

these compounds compared with neutral atoms. A study of the distribution of the electron density has shown that the latter has the maximum value between the atoms in the [100] direction, between the nearest Ti and C or O atoms, thus indicating the presence of an electronic "bridge" between these atoms. These results lead to an estimate of the number of electrons which should be bound with the atoms Ti, C, and O in TiC and TiO. From the numbers of the electrons and from the estimated atomic radii of Ti in TiC and TiO it is concluded that the Ti atoms in TiC are ionized with degree of ionization close to +C, and the carbon having a negative charge ( $\sim -1$ ). In TiO the Ti atoms have a slight positive charge but the oxygen atoms retain all their electrons. A scheme of the electronic structure of the carbide and oxide of titanium is proposed on the basis of the results, and it is concluded that several types of bond are realized between the atoms of these compounds, each bond constituting a combination of several factors. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 20, 07/ SUBM DATE: 20Aug66/ ORIG REF: 009/ OTH REF: 007

Card 2/2

KHAYENKO, L.N.

Electrophysiological data on the parabiosis of the muscle during contractions. Uch.zap.Len.un.no.176:108-118 '54. (MLRA 9:9)

1.Kafedra obshchey biologii Leningradskogo meditsinskogo stomatologicheskogo instituta.  
(MUSCLE) (ELECTROPHYSIOLOGY)

KHAYES, L. B.; KALENCHUK, Z. N. (Arkhangel'sk)

Case of chloroma of the spine. Vop. neirokhir. no.6:59-61 '61.  
(MIRA 14:12)

1. Oblastnaya klinicheskaya bol'nitsa.

(SPINE—TUMORS) (CHLOROMA)

KHAES, S.I.

Effect of nicotinic acid on sugar, glycogen, and lactic acid  
level in the blood. Klin. med., Moskva 30 no. 11:88 Nov 1952.  
(CLML 23:5)

1. Of the Department of Biochemistry (Head — Docent M. D. Kiverin),  
Arkhangel'sk Medical Institute.

*Khayes, S. I.*  
USSR/Medicine' - Pharmacophysiology

FD-865

Card 1/1      Pub.30 - 16/18

Author        : Khayes, S. I.

Title         : Changes in the sugar and glycogen content in the blood after administration of insulin or adrenalin combined with nicotinic acid

Periodical    : Farm. i toks. 17, 58-59, Jul/Aug 54

Abstract      : Experiments on animals and humans showed that the effects of insulin and adrenalin on the sugar and glycogen contents of the blood were neither increased nor decreased by small or large supplementary doses of nicotinic acid. No references are cited.

Institution   : Chair of Biochemistry (Head - Docent M. S. Kiverin) of the Arkhangel'sk Medical Institute

Submitted     : --





KHA. S. I.: "The effect of nicotinic acid on the content of sugar, glycogen, and lactic acid in the blood." Soviet State Medical Institute S. I. Kiry. Ser' 11, 1954.  
(Dissertation for the Degree of Candidate in Medical Sciences).

SO: Arkhivnye Lektorii, No 23, 1954.

KHAYMS, S.I.

Physiological mechanism of the action of nicotinic acid.  
Vitamins no. 4:144-147 '59. (MIRA 12:9)

1. Kafedra biokhimii Arkhangel'skogo meditsinskogo instituta.  
(NICOTINIC ACID) (CARBOHYDRATE METABOLISM)

1. YEFIMOV, V. K.: KHAYESH, M. M.
2. USSR (600)
4. Electric Networks
7. Protection from short circuit currents in underground, low voltage, electric power networks. Prom. energ. 9 no. 12, 1952.
9. Monthly List of Russian Acquisitions, Library of Congress, March, 1953. Unclassified.

YEREMOV, V. K., KHAYESH, M. M.

Short Circuits

Short Circuits in underground low-tension electric systems. Ugol' 27 no. 3 (312), 1952.

2

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

1. BEFLOV, V. K., KHAESI, M. M., Envs.
2. USSR (600)
4. Coal Mines and Mining - Safety Measures
7. Safeguarding against short circuits in underground low voltage electric systems, Ugol' 22, no. 2, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

KHAYESH, Maka Moiseyevich; AFONINA, G., vedushchiy redaktor; PATSALYUK, P.,  
tekhnicheskiiy redaktor

[Mining electrician] Shakhtnyi elektroslesar'. Kiev, Gos. izd-vo  
tekhn. lit-ry USSR, 1957. 165 p. (MIRA 10:3)  
(Electricity in mining) (Electric engineering)

27(3)

PHASE I BOOK EXPLOITATION

SOV/2324

Khayesh, Maks Moiseyevich

Elektrobezopasnost'. v podzemnykh vyrabotkakh; posobiye dlya obshchestvennykh inspektorov po okhrane truda (Safety Measures for Work With Electricity in Underground Mining; Manual for Public Labor Inspectors) Moscow, Profizdat, 1958. 134 p. 5,000 copies printed.

Ed.: A.A. Veselkina; Tech. Ed.: A.A. Golichenkova.

PURPOSE: This is a manual for public inspectors of worker safety and for technical inspectors as a manual on electrical safety measures in underground mining.

COVERAGE: The book contains basic information on electrical safety in underground mines. Essential data characterizing specific features of electrical mine equipment operation are presented and methods of checking and controlling the state of underground electrical networks are discussed from the standpoint of safety. There are 31 references, all Soviet. No personalities are mentioned.

Card 1/4

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721920005-5

TABLE OF CONTENTS:

I. Mine Atmosphere and Basic Features of Electrical Equipment	3
The atmosphere in mines	3
Electrical mine equipment	11
II. Effect of Electric Current on the Human Organism in Mine Conditions	19
Effect of electric current	19
Conditions of electric shock in mines	25
III. Electric Shock Prevention in Mines	32
Individual protective measures against electric shock	32
Instruments and devices for operating live equipment	36
Methods of protection against electric shock	39
IV. Prevention of Fires Caused by Electricity in Underground Mines	58
Causes of fires from electricity in coal mines	59
Electrical protective equipment in mines and basic principles	

Card 2/4

SUKHAREVSKIY, V.M., kand.tekhn.nauk; KHAYESH, M.M., inzh.

Underground fires caused by d.c.electric currents and the prevention of these fires. Bezop.truda v prom. 4 no.1:9-11  
JA '60. (MIRA 13:5)  
(Coal mines and mining--Fires and fire prevention)



KHAYESH, M.M., inzh.

Protection against short-circuit currents in electric haulage  
systems. Ugol' Ukr. 4 no.2:21-22 P '60. (MIHA 13:6)  
(Electricity in mining--Safety measures) (Mine haulage)

KHAYESH, S.L., inzhener-teplotekhnik.

Power supply of large coal mines. Ugol' 29 no.4:21-25 Ap '54.  
(MLRA 7:2)

1. Karagandagiproshakht. (Electricity in mining)  
(Coal mines and mining)

KHAYFETS, L.G., inzh.; CHEKAREV, V.A., kand.tekhn.nauk

Putting order in work organization and the establishment of technical norms for mining operations. Shakht.stroi. 4 no.2: 4-6 F '60. (MIRA 13:5)

1. Tsentral'noye nauchno-issledovatel'skoye byuro pri Nauchno-issledovatel'skom institute ekonomiki stroitel'stva Akademii stroitel'stva i arkhitektury SSSR (for Kheyfets). 2. Nauchno-issledovatel'skiy institut ekonomiki stroitel'stva Akademii stroitel'stva i arkhitektury SSSR (for Chekarev).  
(Mine management)

MIROSHNICHENKO, A.M., kand. tekhn. nauk; PANCHENKO, S.I., doktor tekhn. nauk; SHTROMBERG, B.I., kand. tekhn. nauk; FRISHEERG, V.D., kand. tekhn. nauk; BAYDALINOV, P.A., inzh.; GRYAZNOV, N.S., doktor tekhn. nauk; ZASHKVARA, V.G., doktor tekhn. nauk; LAZOVSKIY, I.M., kand. tekhn. nauk; MARINICHEV, B.T., inzh.; FEL'DERIN, M.G., kand. tekhn. nauk; BAKUN, N.A., inzh.; BARATS, B.M., inzh.; VOZNYIY, G.F., kand. tekhn. nauk; MIKHAL'CHUK, A.M., inzh.; TOPORKOV, V.Ya., kand. tekhn. nauk; FLORINSKIY, N.V., inzh.; KHAYET, A.N., inzh.; SHELKOV, A.K., inzh., red.; ARONOV, S.G., doktor tekhn. nauk, red.; PREOBRAZHENSKIY, P.I., inzh., red.

[Manual for coke chemists in six volumes] Spravochnik koksokhimika v shesti tomakh. Moskva, Izd-vo "Metallurgiya." Vol.1.

[Source of raw materials and preparation of coal for coking] Syr'evaia baza i podgotovka uglei k koksovaniu. 1964. 490 p.

(MIRA 17:5)

KHAYET, G.L.

SHUL'MAN, P.T., inzhener, laureat Stalinskoy premii; KUZNETSOV, V.O., inzhener, laureat Stalinskoy premii; ~~KHAYET, G.L.~~ inzhener; YAKOVLEV, G.M., inzhener; DOTSENKO, M.G., redaktor; NESTERENKO, D.M., tekhnicheskii redaktor.

[High-speed metal cutting; experience of the Novo-Kramatorsk Stalin Machine Construction Plant (Order of Lenin)] Shvydkisna obrobka metaliv rizanniam; dosvid novo-kramators'koho ordena Lenina mashynobudivnogo zavodu imeni Stalina. Kyiv, Dershavne naukovo-tekh. vyd-vo mashynobudivnoi lit-ry, 1952. 103 p.  
(Metal cutting) (MLRA 8:2)

KHAYEF, G.L.; MAKIMOV, I.G.

Constructing cutters for fast cutting. Stan.i instr. vol.24 no.9:30-31 S '53.  
(MLBA 6:10)  
(Metal cutting)

KHAYET, G. L., Cand Tech Sci -- (diss) "Author's Report <sup>of</sup> ~~on the~~  
Dissertation Work for Obtaining the <sup>scientific</sup> Degree of Candidate of Technical  
Sciences on the Theme <sup>91 Study</sup> ~~Investigation~~ of the Forces of <sup>cutting</sup> ~~Gision~~ and  
Wear of <sup>solid alloy</sup> ~~Hard-Melting~~ Cutters in <sup>the</sup> ~~Cutting~~ Steel Under ~~XXXXXXXXXX~~  
Conditions of Continuous Cutting." Mos, TsBTI, 1957. 15 pp  
(Gosplan USSR, Central Sci Res Inst of Technology and Machine  
<sup>Building</sup> ~~Construction~~ TsNIITMash), 100 copies (KL, 51-57, 93)

KHAYET, G.L., inzh.

Characteristics of cutting processes and efficient conditions for  
cutting off steel by hard alloy cutters. Vest. mash. 38 no.1:77-  
83 Jn '58. (MIRA 11:1)

(Metal cutting)



KHAYET, C.L.

- 25(2,5) PHASE I BOOK EXPLOITATION SOV/2885
- Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya
- Povysheniye prochnosti elementov konstruktivnoy i detal'nykh mashin (Increasing the Strength of Constructive and Machine Elements). Moscow, Mashgiz, 1959. 210 p. (Series: Iste [Sbornik] No. 91). 5,300 copies printed.
- Ed. (Title page): I. V. Kudryavtsev, Doctor of Technical Sciences. Prof. Ed. (Inside book): A. G. Bikitin, Engineer, Tech. Ed.: V. D. El'kind, Managing Ed. for Literature on Transport Machine Building (Mashgis): G. A. Pomarev, Engineer.
- PURPOSE: This collection of articles is intended for designers, process engineers, and scientific research workers in the machine-building industry.
- CONTENTS: The collection contains papers dealing with experimental work done recently by leading specialists. The experiments are concerned with the practical aspects of work hardening in industry. Limited data are presented on the effect of work hardening on the strength and reliability of machine parts and constructional elements are discussed. Several articles are devoted to problems of increasing the fatigue strength of machine parts by work hardening. Industrial practices of HAZ in Krasnotar in external burnishing of large machine parts are presented. Tools and fixtures used in surface work hardening are described. No personalities are mentioned. References follow each article.
- Khayet, C. L. /Candidate of Technical Sciences/, D. A. Sten'ko, and G. A. Bikitin, /Engineers/. Practice at the Krasnotar Machine-Building Plant in External Burnishing of Large Machine Parts With Rollers 76
- The technique of conducting experiments, the geometry of the tool, the principles of selecting the burnishing regime, and the devices used are described and discussed. A table with diagrams of burnished machine parts and data on effects of burnishing is presented.
- Kudryavtsev, I. V., and N. A. Balabanov /Candidate of Technical Sciences/. Work Hardening of Stepped Shafts by Fillet Peening 133
- Results of fatigue tests on stepped steel shafts are analyzed. Comparisons are drawn between shafts work-hardened by fillet peening and shafts not subjected to any work-hardening process. Fillet peening is shown to have a beneficial effect on the fatigue strength of stepped shafts. A spring-actuated striding pin with a spherically rounded end.
- Barata, A. I. /Engineer/. Increasing the Life of Metallurgical Machinery Parts by External Burnishing With Rollers 123
- Constructions of the burnishing devices used are described, and some problems connected with the technique of burnishing are discussed. Results of testing burnished surfaces in operation are presented.

AUTHOR: Khayet, G.L., Engineer SOV/129-59-2-11/16  
TITLE: Machinability of Steel and Cast Iron in Cutting-off Operations by Means of Carbide-tipped Cutting Tools  
(Obrabatyvayemost' staley i chuguna pri otrezke  
tverdosplavnyimi reztsami)  
PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov,  
1959, Nr 2, pp 49 - 53 (USSR)

ABSTRACT: Investigations have shown that the friction forces along the wall of the recess during cutting-off operations bring about an appreciable increase in the cutting forces and the slot walls aim to carry away the metal of the surface layers of the side faces of the chip. This is prevented by the front flank under the auxiliary cutting edge, as a result of which the specific cutting pressure increases. As the cutting edge gets nearer to the axis of the blank, the cutting force increases and thereby the difference will also increase between the forces required for free cutting and those required for cutting off. Experimental data are graphed in Figure 1. Contrary to the accepted views, the author did not find any direct proportionality between the width of the cutting-off slot and the magnitude

Card1/3

SOV/129-59-2-11/16

Machinability of Steel and Cast Iron in Cutting-off Operations  
by Means of Carbide-tipped Cutting Tools

of the cutting forces. Sketches in Figure 2 show the geometrical parameters of the cutting tips of cutting-off tools which were found to yield optimum results for cutting-off medium carbon steels, applying cooling. The author states that tools with this geometry are also favourable for most of the other materials. Data are given on the dependence of the service life of the cuttingoff tool for various materials and various machining conditions (graph, Figure 3). Data on the relation between the hardness of the machined materials and the performance indices are graphed in Figure 4. The experimental data given in the paper indicate that the influence of the machined material on the cutting forces and the optimum feeds and cutting speeds differ from the corresponding values in other machining operations. This is due to the considerable forces of friction between the chip and the slot wall and to the increased influence of brittle wear. These unfavourable features manifest themselves most clearly in materials which are difficult to machine. It is stated that by using geometrical

Card2/3

SOV/129-59-2-11/16

Machinability of Steel and Cast Iron in Cutting-off Operations  
by Means of Carbide-tipped Cutting Tools

parameters of the cutting tips as shown in Figure 2,  
and by selecting correctly the cutting regimes, the  
difficulties can be alleviated and a considerable increase  
in productivity obtained.

There are 4 figures and 3 tables.

ASSOCIATION: Novo-Kramatorskiy mashinostroitel'nyy zavod  
(Novo-Kramatorskiy Machine Construction Works)

Card 3/3

KHAYET, G.L., kand. tekhn. nauk; STEN'KO, D.A., inzh.; BRUSILOVSKIY, B.A., inzh.

Experience of the Novo-Kramatorsk Machinery Plant (Kramatorsk)  
in hard-facing large parts by rolling with rolls. [Trudy]

TSHIITMASH 91:76-94 '59. (MIRA 12:8)  
(Hard facing) (Kramatorsk--Machinery industry)

KHAYET, G.L.; SOLOV'YEV, L.N.

Analysis of the utilization of heavy lothes. Stan. 1 instr.  
35 no.3:38-42 Mr'64. (MIPA 17:5)

KHAYET, G.L., kand. tekhn. nauk; KORKH, L.M., inzh.

Selecting tools and cutting conditions for machining antifriction  
ceramic-metal materials. Mashinostroenie no.5:35-37 S.O '65.  
(MIRA. 18:9)

L 40242-6 L.N.(a)/T.N.(b)/T.N.(c)/T.N.(d) L.N.(e) L.N.(f) L.N.(g) L.N.(h) L.N.(i) L.N.(j) L.N.(k) L.N.(l) L.N.(m) L.N.(n) L.N.(o) L.N.(p) L.N.(q) L.N.(r) L.N.(s) L.N.(t) L.N.(u) L.N.(v) L.N.(w) L.N.(x) L.N.(y) L.N.(z) L.N.(aa) L.N.(ab) L.N.(ac) L.N.(ad) L.N.(ae) L.N.(af) L.N.(ag) L.N.(ah) L.N.(ai) L.N.(aj) L.N.(ak) L.N.(al) L.N.(am) L.N.(an) L.N.(ao) L.N.(ap) L.N.(aq) L.N.(ar) L.N.(as) L.N.(at) L.N.(au) L.N.(av) L.N.(aw) L.N.(ax) L.N.(ay) L.N.(az) L.N.(ba) L.N.(bb) L.N.(bc) L.N.(bd) L.N.(be) L.N.(bf) L.N.(bg) L.N.(bh) L.N.(bi) L.N.(bj) L.N.(bk) L.N.(bl) L.N.(bm) L.N.(bn) L.N.(bo) L.N.(bp) L.N.(bq) L.N.(br) L.N.(bs) L.N.(bt) L.N.(bu) L.N.(bv) L.N.(bw) L.N.(bx) L.N.(by) L.N.(bz) L.N.(ca) L.N.(cb) L.N.(cc) L.N.(cd) L.N.(ce) L.N.(cf) L.N.(cg) L.N.(ch) L.N.(ci) L.N.(cj) L.N.(ck) L.N.(cl) L.N.(cm) L.N.(cn) L.N.(co) L.N.(cp) L.N.(cq) L.N.(cr) L.N.(cs) L.N.(ct) L.N.(cu) L.N.(cv) L.N.(cw) L.N.(cx) L.N.(cy) L.N.(cz) L.N.(da) L.N.(db) L.N.(dc) L.N.(dd) L.N.(de) L.N.(df) L.N.(dg) L.N.(dh) L.N.(di) L.N.(dj) L.N.(dk) L.N.(dl) L.N.(dm) L.N.(dn) L.N.(do) L.N.(dp) L.N.(dq) L.N.(dr) L.N.(ds) L.N.(dt) L.N.(du) L.N.(dv) L.N.(dw) L.N.(dx) L.N.(dy) L.N.(dz) L.N.(ea) L.N.(eb) L.N.(ec) L.N.(ed) L.N.(ee) L.N.(ef) L.N.(eg) L.N.(eh) L.N.(ei) L.N.(ej) L.N.(ek) L.N.(el) L.N.(em) L.N.(en) L.N.(eo) L.N.(ep) L.N.(eq) L.N.(er) L.N.(es) L.N.(et) L.N.(eu) L.N.(ev) L.N.(ew) L.N.(ex) L.N.(ey) L.N.(ez) L.N.(fa) L.N.(fb) L.N.(fc) L.N.(fd) L.N.(fe) L.N.(ff) L.N.(fg) L.N.(fh) L.N.(fi) L.N.(fj) L.N.(fk) L.N.(fl) L.N.(fm) L.N.(fn) L.N.(fo) L.N.(fp) L.N.(fq) L.N.(fr) L.N.(fs) L.N.(ft) L.N.(fu) L.N.(fv) L.N.(fw) L.N.(fx) L.N.(fy) L.N.(fz) L.N.(ga) L.N.(gb) L.N.(gc) L.N.(gd) L.N.(ge) L.N.(gf) L.N.(gg) L.N.(gh) L.N.(gi) L.N.(gj) L.N.(gk) L.N.(gl) L.N.(gm) L.N.(gn) L.N.(go) L.N.(gp) L.N.(gq) L.N.(gr) L.N.(gs) L.N.(gt) L.N.(gu) L.N.(gv) L.N.(gw) L.N.(gx) L.N.(gy) L.N.(gz) L.N.(ha) L.N.(hb) L.N.(hc) L.N.(hd) L.N.(he) L.N.(hf) L.N.(hg) L.N.(hh) L.N.(hi) L.N.(hj) L.N.(hk) L.N.(hl) L.N.(hm) L.N.(hn) L.N.(ho) L.N.(hp) L.N.(hq) L.N.(hr) L.N.(hs) L.N.(ht) L.N.(hu) L.N.(hv) L.N.(hw) L.N.(hx) L.N.(hy) L.N.(hz) L.N.(ia) L.N.(ib) L.N.(ic) L.N.(id) L.N.(ie) L.N.(if) L.N.(ig) L.N.(ih) L.N.(ii) L.N.(ij) L.N.(ik) L.N.(il) L.N.(im) L.N.(in) L.N.(io) L.N.(ip) L.N.(iq) L.N.(ir) L.N.(is) L.N.(it) L.N.(iu) L.N.(iv) L.N.(iw) L.N.(ix) L.N.(iy) L.N.(iz) L.N.(ja) L.N.(jb) L.N.(jc) L.N.(jd) L.N.(je) L.N.(jf) L.N.(jg) L.N.(jh) L.N.(ji) L.N.(jj) L.N.(jk) L.N.(jl) L.N.(jm) L.N.(jn) L.N.(jo) L.N.(jp) L.N.(jq) L.N.(jr) L.N.(js) L.N.(jt) L.N.(ju) L.N.(jv) L.N.(jw) L.N.(jx) L.N.(jy) L.N.(jz) L.N.(ka) L.N.(kb) L.N.(kc) L.N.(kd) L.N.(ke) L.N.(kf) L.N.(kg) L.N.(kh) L.N.(ki) L.N.(kj) L.N.(kk) L.N.(kl) L.N.(km) L.N.(kn) L.N.(ko) L.N.(kp) L.N.(kq) L.N.(kr) L.N.(ks) L.N.(kt) L.N.(ku) L.N.(kv) L.N.(kw) L.N.(kx) L.N.(ky) L.N.(kz) L.N.(la) L.N.(lb) L.N.(lc) L.N.(ld) L.N.(le) L.N.(lf) L.N.(lg) L.N.(lh) L.N.(li) L.N.(lj) L.N.(lk) L.N.(ll) L.N.(lm) L.N.(ln) L.N.(lo) L.N.(lp) L.N.(lq) L.N.(lr) L.N.(ls) L.N.(lt) L.N.(lu) L.N.(lv) L.N.(lw) 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TITLE: Improving surface finish during turning of cermet antifriction materials 7 8

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 1, 1966, 29-31

TOPIC TAGS: antifriction material, surface finishing, bushing, cutting tool, contact stress, iron, copper, graphite, cermet wear material

ABSTRACT: The article is a report on experiments done at the Kramatorsk Industrial Institute to develop practical recommendations for turning antifriction cermet materials based on iron with admixtures of 2.5% copper and 1.5% graphite with a 20% porosity. This material is strong, ductile, and has good antifriction properties. Bushings with the following dimensions were machined: 90 mm outside diameter, 50 mm inside diameter and 85 mm long. These bushings were made of PZh-2M powder sintered at 1150°C. T15K6 hard-faced cutters were used for turning the specimens. The UDM-1 dynamometer was used for measuring cutting forces. Work surface irregularities were measured with the MIS-11 microscope. All data were taken as the result of 8-10 measurements and each test was repeated 4-5 times. The authors discuss various contradictions in the literature on the selection of individual shapes of cutter surfaces. The following cutter parameters are recommended for finishing: rake  $\gamma=8^\circ$ , clearance  $\lambda=0^\circ$ , side cutting edge and side relief angle  $\alpha$  and  $\alpha_1=6^\circ$ , nose angle  $\phi=45^\circ$ , end cutting edge angle  $\phi_1=20^\circ$  and

Card 1/2 UDC: 621.941.1:621.762



L 008 -06

ACC NR: AP6019849

tool radius  $r=1$  mm. An expression is given for calculating the relationship between surface irregularities and cutting conditions. The effect of cutting conditions on cutting stress for machining with cutters having a given geometry is studied. This is very important for mass production. The vertical ( $P_z$ ), radial ( $P_y$ ) and axial ( $P_x$ ) components of cutter forces can be determined for practical purposes by using the following formulas:

$$P_z = 20 r^{0.95} \cdot S^{0.6};$$

$$P_y = 10 r^{0.9} \cdot S^{0.5};$$

$$P_x = 6 r^{1.0} \cdot S^{0.45}.$$

Cutting conditions based on this study are presently being used for machining cermet materials. Orig. art. has: 1 table, 5 formulas.

SUB CODE: 11, 15/ SUBM DATE: none/ ORIG REF: 005

Card 2/2 MLP

**KHAYET, L.I.,** kandidat meditsinskikh nauk (Khar'kov)

Visual aids in teaching obstetrics. Fel'd. i akush. no.10:55-57  
O '55. (MLRA 8:12)

(OBSTETRICS --STUDY AND TEACHING)

KHAYET, M.Z.; BALAKIREV, A.A.; LISHNEVSKIY, M.I.

Operation of specific-weight gauges in a thermal-cracking unit.  
Nefteper. i neftekhim. no.6:36-40'63 (MIRA 17:7)

1. Novo-Gor'kovskiy neftepererabatyvayushchiy zavod i Spetsial'-  
noye konstruktorskoye byuro po avtomatike v neftepererabotke  
i neftekhimii.

KHAYET, V.

Familiarize yourself with these publications. Sel'. stroi.  
no.12:28-29 D '62. (MIRA 16:1)

1. Starshiy redaktor Proftekhizdata.

(Bibliography—Building)

ACC NR: AP6025389      SOURCE CODE: UR/0366/66/002/007/1155/1157

AUTHOR: Kruglikova, R. I.; Kalinina, G. R.; Khayetskaya, Y. V.;  
Leonova, G. S.

ORG: Moscow Institute of Fine Chemical Technology (Moskovskiy institut  
tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova)

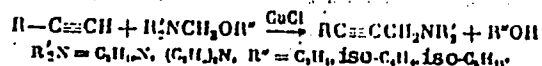
TITLE: The use of alkoxy methylamines in the preparation of  
α-acetylenic amines

SOURCE: Zhurnal organicheskoy khimii, v. 2, no. 7, 1966, 1155-1157

TOPIC TAGS: acetylenic amine, alkoxy methylamine, ACETYLENE COMPOUND,  
AMINE, CHEMICAL REACTION

ABSTRACT:

The previously unreported I—V acetylenic amines (see table) were ob-  
tained by the Mannich reaction in the presence of CuCl using alkyl-  
alkoxy methylamines as aminomethylating agents:

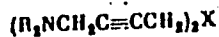


Card 1/2

UDC: 547.312+547.233

ACC NR: AP6025389

Hydrogenation of I over a Pd/BaSO<sub>4</sub> catalyst yielded amine VI. Composition and properties of the acetylenic amines are shown in the table.



No.	R	X	Yield (%)	bp (p in mm)	d <sub>4</sub> <sup>20</sup>	n <sub>D</sub> <sup>20</sup>	MR <sub>s</sub>		Found		
							Found	Calcd	C	N	H
I	C <sub>2</sub> H <sub>5</sub>	—	78	101—103° (0.05)	0.8411	1.4790	79.99	79.96	77.40	11.32	11.16
II	C <sub>2</sub> H <sub>5</sub>	NC <sub>2</sub> H <sub>5</sub>	78	120—123° (0.04)	0.8260	1.4780	83.00	82.81	74.34	11.34	14.70
III	CH <sub>3</sub>	NC <sub>2</sub> H <sub>5</sub>	80	114—116.5 (0.4)	0.8039	1.4798	73.81	74.16	71.31	10.83	17.80
IV	C <sub>2</sub> H <sub>5</sub>	S	73	141—143° (0.55)	0.8548	1.5061	87.31	87.60	68.32	13.13	16.18
V	CH <sub>3</sub>	S	74	120—123° (0.7)	0.8716	1.5151	69.44	69.42	64.05	9.09	17.23
VI	NC <sub>2</sub> H <sub>5</sub>	N(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	83	79.5—80° (0.04)	0.8400	1.4562	82.46	82.96	75.04	14.80	10.88

No.	Formula	Calculated I			d <sub>4</sub> <sup>20</sup>	mp		
		C	N	H		Picrate	Hydrochloride	Hydrochloride
I	C <sub>10</sub> H <sub>18</sub> N <sub>2</sub>	77.30	11.26	11.28	0.86	164.5—165	164—164.8	154—154.8
II	C <sub>14</sub> H <sub>26</sub> N <sub>2</sub>	74.17	11.41	14.42	0.84	147.5—148.5	—	217—218
III	C <sub>14</sub> H <sub>26</sub> N <sub>2</sub>	71.43	10.70	17.86	0.81	106—105.5	—	—
IV	C <sub>16</sub> H <sub>28</sub> N <sub>2</sub> S	68.59	10.08	9.94	0.86	121—122	121—122	—
V	C <sub>16</sub> H <sub>28</sub> N <sub>2</sub> S	64.28	8.83	12.50	0.83	131—131.5	175.8—177	—
VI	C <sub>18</sub> H <sub>30</sub> N <sub>2</sub>	74.84	14.84	10.84	—	170.5—171	—	162—163.8

Orig. art. has: 1 table.

[W.A. 50; CBE No. 10]

SUB CODE: 07/ SUBM DATE: 23Jul65/ OTH REF: 006/

Card 2/2

MESHCHERSKIY, R.M.; KHAYETSKIY, I.K.

Variations in the stereotaxic coordinates of the rabbit brain.  
Zhur.vys.nerv.deiat. 12 no.1:186-190 Ja-F '62. (MIRA 15:12)

1. Institute of Higher Nervous Activity and Neurophysiology,  
U.S.S.R. Academy of Sciences, Moscow.  
(BRAIN)

VERZHBLOVSKIY, M.V.; KHAYEV, A.B. (Donetsk)

History of Donetsk A.M. Gor'kii Medical Institute. Sov. zdrav. 21 no.4:  
18-23 '62. (MIRA 15:5)

1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny (zav. -  
M.V.Verzhiblovskiy) Donetskogo meditsinskogo instituta (rektor A.M.  
Ganichkin).

(DONETSK--MEDICAL COLLEGES)



Y  
KHADEV, M. K.  
A

Vegetable growing. 8. stereotipnoe izd. Moskva, Sel'khozgiz, 1943. 447 p.  
(Uchebniki i uchebnye posobia dlia podgotovki s.-kh. kadrov massovoi kvali-  
fikatsii)

KHNEV, M. K.

Early vegetables and seedlings in protected soil. Moskva. Moskovskii  
bol'shevik, 1945. 57 p.

KHAEV, M

K

Ovoshchevodstvo. . . 9. IZD. Moskva, Sel ' Khozgi. 1947.

440 p. Illus., tables.

At head of title: Uchebniki I Uchebnyie Posobiya . . .

KHANEV, M. K.

Vegetable growing 11. perer. izd. Moskva, Gos. izd-vo selkhoz. lit-ry, 1953.  
512 p. (Uchebniki i uchebnye posobiia dlia podgotovki sel'skokhoziaistvennykh  
kadrov massovoi kvalifikatsii)

KHAYEV, M.K.

[Vegetable gardening] Ovoashchevodstvo. Izd.13, perer. Moskva,  
Gos.izd-vo sel'khoz.lit-ry, 1959. 520 p. (MIRA 13:6)  
(Vegetable gardening)

FOMIN, A.A.; VISHNYAKOV, B.S.; PROKHOROV, V.P.; KHAYEV, V.M.;  
SHVEDSKIY, A.I.; ORLIN, A.S., doktor tekhn. nauk, prof.,  
retsenzent; VASIL'YEVA, N.G., inzh., red.

[Modern tractor diesel engines; atlas of designs] Sov-  
remennye traktornye dizeli; atlas konstruktsii. Moskva,  
Mashgiz, 1963. 232 p. (MIRA 16:12)  
(Tractors--Engines)

LEVCHUK, Ye.P.; KHAYET, V.S.

Device for converting a binary-decimal code to control signals  
of segmental-type digital indicators. Avtom. i prib. no.1:  
29-30 Ja-Mr '65. (MIRA 18:8)

ROGATINA, Nina Prokof'yevna; POPOVA, Zinaida Fedorovna; ARTMANIS, Stella  
Andreyevna; MEL'NIKOVA, Nina Ivanovna; AVDEYEVA Yekaterina Semenovna;  
KUZNETSOVA, Irina Pavlovna; ZHEREBINA, Anna Semenovna; VOYEVODINA,  
Aleksandra Dmitriyevna; KOLPAKOVA, Ninel' Yevgrafovna; KHAYEVA,  
Aleksandra Afanas'yevna; DUNDUKOVA, Valentina Petrovna; LAUSTEN, A.G.,  
nauch. red.; GABOVA, D.M., red.; VINOGRADOVA, G.A., tekhn. red.

[Women's and children's light dress] Zhenskoe i detskoe legkoe plat'e.  
Moskva, Gostekhizdat, 1962. 493 p. (MIRA 15:7)  
(Dressmaking)



KHAYFETS, S.N. (Ussuriysk)

Myoma of the vagina. Akush. i gin. no.2:133-134\*63 (MIRA 16:10)  
(VAGINA --- TUMORS)

BORBUKOVA, M.V., kand. sel'khoz. nauk; MEL'NIKOV, V.A., kand. sel'khoz. nauk; KOMKOVA, M.N., kand. sel'khoz. nauk; ALEKSEYEV, L.Z., agronom; MAKSIMOVA, S.A., agronom; PAYATSYK, V.V., agronom; KHAYKEVICH, A.M., agronom; BYKOVA, M.G., red.; DEYEVA, V.M., tekhn. red.

[Handbook for the potato grower] Spravochnik kartofelevoda.  
Moskva, Sel'khozizdat, 1962. 335 p. (MIRA 16:2)  
(Potatoes)

KHAYFETS, S.L.

Tolerance of PAS by patients with pulmonary tuberculosis.

Probl.tub. 37 no.2:89-91 '59.

(MIRA 12:9)

1. Iz Protivotuberkuleznogo dispansera No.16 Kirovskogo rayona  
Leningrada (glavnyy vrach - zaslushennyy vrach RSFSR A.I.Petrova).  
(TUBERCULOSIS, PULMONARY, ther.

PAS, tolerance (Rus))

KHEYFETS, V.L.; REYSHAKHRIT, L.S.

Principles of the simultaneous discharge of nickel and hydrogen ions. Report No.2: Influence of temperature, cathode potential, and the presence of surface-active anions on the distribution of current between nickel and hydrogen. Uch.zap.LGU no.272: 40-47 '59.

(MIRA 13:1)

(Electrochemistry) (Nickel) (Hydrogen)

KHAYGREKHT, S.I.

Strangulated intestinal obstruction in visceral inversion. Khirurgia  
32 no.6:66 Ja '56. (MIRA 9:10)

1. Iz khirurgicheskogo otdeleniya Keminskoy rayonnoy bol'nitsy  
(glavnyy vrach S.I.Khaygrekht) Frunzenskoy oblasti.  
(INTESTINES--OBSTRUCTION)

KHAYGREKHT, S.I.

Surgical tactics in acute [cases of] foreign bodies in the gastrointestinal tract. Sov.zdrav.Kir. no.4:24-26 J1-Ag '62. (MIKA 15:8)

1. Iz kliniki gospiatal'noy khirurgii No.1 (zav. - prof. Z.I. Igemberdiyev) Kirgizskogo gosudarstvennogo meditsinskogo instituta.  
(ALIMENTARY CANAL—FOREIGN BODIES)

ANIKIN, M., arkhitektor; VAYSMAN, M., inzh.; KHAYKEL'SON, Ye. [Khaikel'son,  
'E.], inzh.

District center "Sil'hosptekhnika." Sil'.bud. 13 no.10:10-11 0 '63.  
(MIRA 17:3)

KHAYKEVICH, A., agronom (Olessko, L'vovskoy oblasti)

The neighbor won't fall behind. Nauka i pered.op.v sel'-  
khoz. 9 no.11:7-11 N '59. (MIRA 13:3)  
(Agriculture)



KHAYKEVICH, Adol'f Adol'fovich; CHERNYSHEV, A.N., kand. tekhn.  
nauk, red.; MAKOVSKAYA, R.P., red.

[Construction and kinematic design of mechanisms and  
systems for scale changes in automatic electric engrav-  
ing machines; manual for students of the Faculty of  
Mechanical Engineering] Konstruktsiia i kinematicheskii  
raschet mekhanizmov i sistem izmeneniia msshstaba v  
elektrograviroval'nykh avtomatakh; uchebnoe posobie dlia  
studentov mekhaniko-mashinostroitel'nogo fakul'teta. Mo-  
skva, Poligraficheskii institut, 1964. 54 p.

(MIRA 18:7)

KHAYKEVICH, A.M.

526

Rayon Vysokikh urozhayev zerna. Verkhne-Ural'skiy rayon  
Chelyab. doc. / M., Goskul'tprosvetizdat, 1954. 19 s. s 111  
22sm. (Vsesoyuz. s-kh. Vystavka). 15.000 eks. 20k - Na-  
obl. aut. ne ukazan. /54-54694/ p 633.1st(47.812).

SO: Knizhnaya Letopis, Vol. 1, 1955

AUTHOR: Khaykevich, G.I.

SOV-117-58-10-9/35

TITLE: A Photoelectric Protective Device for Presses (Fotoelektricheskoye zashchitnoye ustroystvo k pressam)

PERIODICAL: Mashinostroitel', 1958, Nr 10, pp 13 - 14 (USSR)

ABSTRACT: The author points out that the use of photoelectric safety devices attached to presses and machines guarantees more protection than mechanical devices and increases the work productivity by 15 to 20%. With alterations, the photoelectric device can also be used for the counting and checking of parts. The low voltage needed excludes electrical accidents. One such photoelectric protective device for presses is shown in situ (fig. 1), the arrangement of its component parts (fig. 2) and the theoretical principles are explained. There are 2 photos and 1 circuit diagram.

1. Photoelectric cells--Applications devices      2. Machines--Safety

Card 1/1

L 02:57-67

ACC IR: AP6027446

(N)

SOURCE CODE: UR/0308/66/000/008/0026/0027

AUTHOR: Khaykin, A. (Candidate of technical sciences, Head); Yagodkin, V.  
Candidate of technical sciences)

ORG: Khaykin Department of Electric Propulsion of Ships, LVIMU (Kafedra "Elektro-  
dvizheniye sudov" LVIMU

TITLE: The operation of an icebreaker's electric propeller drive while breaking  
ice with propeller blades

SOURCE: Morskoy flot, no. 8, 1966, 26-27

TOPIC TAGS: propeller blade, ice breaker, marine engineering, *ELECTRIC  
PROPULSION*

ABSTRACT: The operation of an icebreaker in uniform-ice areas is characterized by  
increased bending moments on propeller blades while breaking ice and decreased  
moments in ice-free water. The propeller blades are subjected to maximum stress  
when the propeller is blocked by a cake of ice. A formula is given for the moment  
which must be applied to break up ice and for the relationship between this moment  
and the blade's deflection angle. The depth of the blade's bite into ice is ex-  
pressed as a function of its designed pitch angle, deflection angle, and propeller  
diameter. The characteristic given for the moment as a function of the rpm makes  
it possible to determine those parameters of an ice breaker's propeller drive which  
will eliminate a blocking of the propeller. Orig. art. has: 2 figures and 6 formu-  
las.

SUB CODE: 13/ SUBM DATE: none/  
Card 1/1

[GE]

UDC: 629.124.791:629.12:538.582.5.037.001.345

Electric propulsion motors with current rectifier blocks.  
Mor. flot. 24 no.5:25-27 My '64.

(MIRA 18:12)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche  
im. admirala Makarova.

~~KHAYKIN, A.B., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; KHOMYAKOV, N.M.,~~  
~~red.; PETERSON, M.M., tekhn.red.~~

[Elements of modern technology of electric ship propulsion]  
Moscow. Tsentral'nyi nauchno-issledovatel'skiy institut morskogo  
flota. [Elements of modern technology of electric ship propulsion]  
Elementy sovremennoi tekhniki transport, 1956. 69 p. (Informatsionnyi  
sbornik po obobshcheniu opyta otechestvennoi i zarubezhnoi nauki i  
tekhniki, no. 2) (MIRA 11:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota  
(for Khaykin).

(Ship propulsion, Electric)

KHAYKIN, A.B., kandidat tekhnicheskikh nauk.

Centralized use of power produced by hydroelectric power stations  
for power plants on river-going ships. Rech.transp.15 no.11:18-19  
N '56. (MLBA 10:2)

(Electricity on ships) (Hydroelectric power plants)

KHAYKIN, Abram Borisovich; FRIK, A.O., red.; IVANOV, K.A., red.;  
BEOICHEVA, M.N., tekhn.red.

[Electric propulsion of ships] Elektrodvizhenie sudov. Moskva,  
Izd-vo "Morskoi transport," 1957. 154 p. (MIRA 11:1)  
(Ship propulsion, Electric)

KHAYKIN, A.B.

Attachment to screw-cutting lathes for shaping slotted couplings  
(part No. 91) to screwing machines. Obm. tekhn. opyt. [ML?] no.37:  
22-24 '57. (MIRA 1:1:9)  
(Lathes--Attachments) (Shoe machinery)



KHAYKIN, A.B., kand.tekhn.nauk

Approximate calculation of transient conditions in d.c. propeller  
electric units. Trudy TSNIIMF no.14:79-114 '58. (MIRA 11:4)  
(Ship propulsion, Electric)

KHAYKIN, A.B., kand.tekhn.nauk

Testing electrically propelled ships and measures to improve their operation. Trudy NTO sud.prom. 8 no.5:149-172 '59. (MIRA 13:7)

(Ship propulsion, Electric--Testing)  
(Marine diesel engines--Testing)

Khaykin, A.B.

PHASE I BOOK EXPLOITATION SOV/5324

Polonskiy, Vladimir Ivanovich, and Abram Borisovich Khaykin

Elektrokhody i perspektivy ikh razvitiya (Electrically Propelled Ships and the Prospects for Their Development) Leningrad, Sudpromgiz, 1960. 499 p. 2,300 copies printed.

Scientific Ed.: N.A. Kuznetsov; Ed.: Yu. I. Smirnov; Tech. Eds.: A.I. Kontovich and Yu.N. Korovenko.

PURPOSE: This book is intended for technical personnel in the shipbuilding industry, sea and river fleets, and design offices. It may also be useful to students of these fields in universities, tekhnikums, and naval schools.

COVERAGE: The book contains information on the present state of electrical propulsion of ships and a description of electric propeller installations and their circuits. A considerable part of the book deals with the analysis of the technical characteristics of d-c and a-c electric propeller installations. Data on basic equipment elements, electrical propulsion circuits, and the

Card 1/8

Electrically Propelled Ships (Cont.)

SOV/5324

results of the testing of the majority of Soviet electrically propelled ships are reviewed. Basic trends in the development of electrical ship propulsion are discussed. The authors thank the following: P.I. Strumpe, L.K. Demchenko, and G.A. Meleshkin, Candidates of Technical Sciences, and Yepifanov, N.A. Agafonov, S.I. Antcnov, and Ye.I. Traper, Engineers, who supplied materials on electric propeller installations and their testing; V.M. Alekseyev, Candidate of Technical Sciences, and N.A. Kuznetsov, L.V. Chernikov, Ayzenshtaut, and B.A. Trofimov, Engineers, for their advice; and N.M. Khomikov, who organized a discussion of the manuscript. There are 18 references, all Soviet.

TABLE OF CONTENTS:

Foreword	3
List of Abbreviations and Symbols	4
Introduction	13
Card 2/8	

KHAYKIN, A.B., kand.tekhn.nauk; SHTUMF, E.P., inzh.

Automatic control systems for propulsion equipment with regular  
pitch propellers. Sudostroenie 26 no.10:18-24 0'60. (MIRA 13:10)  
(Ship propulsion) (Automatic control)

KHAYKIN, A.B., kand.tekhn.nauk; SHTUMPF, E.P., inzh.

Noncontact system of temperature signalization. Sudostroenie  
28 no.3:28-31 Mr '62. (MIRA 15:4)  
(Temperature regulators) (Electricity on ships)

KHAYKIN, A.B., kand.tekhn.nauk; TITAR, A., inzh.

Study of the transient processes of electric drives. Vest.  
elektroprom. 33 no.5:53-56 My '62. (MIRA 15:5)  
(Electric driving) (Marine engines)

KHAYKIN, Abram Borisovich; KHOMYAKOV, N.I., doktor tekhn. nauk, prof.,  
~~retsensent~~; POLONSKIY, V.I., zas. deyatel' nauki i tekhniki,  
doktor tekhn. nauk, prof., red.; GORYANSKIY, Yu.V., red. izd-  
va; KOTLYAKOVA, O.I., tekhn. red.

[Dynamics of electric ship propulsion systems] Dinamika greb-  
nykh elektricheskikh ustanovok. Leningrad, Izd-vo "Morskoi  
transport," 1962. 639 p. (MIRA 16:4)  
(Ship propulsion, Electric)



KHAYKIN, A.B., kand.tekhn.nauk; SHTUMPF, E.P., kand.tekhn.nauk

Torque measurement on propeller shafts during ship trials. Sudostroenie  
29 no.1:69-72 Ja '63. (MIRA 16:3)  
(Shafting) (Torque)

POLONSKIY, V.I., doktor tekhn. nauk, prof.; KHAYKIN, A.B., dotsent

"Automatic systems on ships" by D.V. Vasil'ev, V.A. Mikhailov,  
and B.N. Mikhailov. Reviewed by V.I. Polonskii, A.B. Khaikin.  
Elektrichestvo no.5:94-96 My '63. (MIRA 16:7)

(Ships--Electric equipment)  
(Vasil'ev, D.V.) (Mikhailov, V.A.)  
(Mikhailov, B.N.)

KHAYKIN, A.B., kand.tekhn.nauk; CHIRKOV, V.A., inzh.

Marine electric power station of a line icebreaker with a self-excitation  
system. Sudostroenie 29 no.4:35-39 Ap '63. (MIRA 16:4)  
(Electricity on ships) (Ice breaking vessels)

KHAYKIN, A.B., kand.tekhn.nauk

Dynamics of electric ship propulsion systems on icebreakers,  
during the propeller interaction with ice. Sudostroenie 29 no.9:  
31-35 S '63. (MIRA 16:11)

KHAYKIN, A.B., kand.tekhn.nauk, ZAKHAROV, Yu.P., inzh.

Results of testing the electric propulsion plant of a harbor ice-breaker. Sudostroenie 31 no.1:40-42 Ja '65.

(MIRA 18:3)

MIKHAYLOV, Vladimir Aleksandrovich; RUKAVISHNIKOV, Sergey  
Borisovich; FREYDZON, Isaak Rubinovich; VYLKOST, V.D.,  
inzh., retsenzent; KHAYKIN, A.B., kand. tekhn. nauk dots,  
retsenzent; NORNEVSKIY, B.I., prof., nauchn. red.

[Electric propulsion of ships and electric driving of  
ship mechanisms] Elektrodvizhenie sudov i elektroprivod  
sudovykh mekhanizmov. Leningrad, Sudostroenie, 1965.  
606 p. (MIRA 18:7)

KHAYKIN, Abram Borisovich; INZHEK, Boris Pavlovich; LYALYUNOV, V.I.;  
inzh., retsentsent; KVOCHKINA, G.P., inzh., zashchita rel.,  
KVOCHKINA, G.P., inzh.

[Automatic control of the operation of ships with controllable  
pitch propellers] Avtomaticheskoe regulirovaniye rezhimov ra-  
boby sudov s VRShe. (Mashinostroyeniye, 1965. 197 p.  
MIRA 18:12)

L 27223-66 EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v)

ACC NR: AM6002138

Monograph

UR/  
58  
57  
B+1

Khaykin, Abram Borisovich; Shtumpf, Edgar Pavlovich

Automatic control of the operation of ships with screws of variable pitch (Avtomaticheskoye regulirovaniye rezhimov raboty sudov s VRSh) Leningrad, Izd-vo "Sudostroyeniye," 1965. 197 p. illus., biblio. 2000 copies printed.

TOPIC TAGS: marine engineering, shipbuilding engineering, analog computer, moment transducer, ship component, automatic control, automatic control equipment, propeller, ship propeller, variable pitch propeller, variable pitch propeller control

ABSTRACT AND COVERAGE: This book is intended for engineers and technicians engaged in the designing and building of ships equipped with variable-pitch propellers; it may also be used by students of higher educational institutions studying the automation of ship equipment. In the book, principles are outlined for constructing the systems and elements of automatic control for ships having variable-pitch propellers, as well as methods for analyzing and designing these devices. Examples are presented for analyzing these devices using analog computers in conjunction with actual equipment. Systems of program control and automation are worked out based on magnetoelastic moment transducers and other

UDC: 629.12.037-52



L 27223-66

ACC NR. AM6002138

measuring devices. Chapter VI and para. 15 of chapter IV were  
written by V. A. Chirkov.

TABLE OF CONTENTS [abridged]:

Introduction -- 3

Ch. I. General information concerning automation systems on ships with  
variable-pitch propellers -- 6

Ch. II. Systems for the automatic control of main-engine output -- 19

Ch. III. Methods for calculating several systems for propeller units  
with variable-pitch propellers -- 64

Ch. IV. Automatic program control of propeller units with variable-  
pitch propellers -- 84

Ch. V. Automatic protection of main engines against overloading during  
the operation of variable-pitch propellers -- 129

Ch. VI. Mathematical modelling of automated systems equipped with  
variable-pitch propellers -- 161

Card 2/3

L 27223-66

ACF 00 AM6002138

Tests for automation systems of propeller units equipped  
with variable-pitch propellers -- 185

Reference -- 196

Appendices -- insert between 196-197

SEE: 13, 14, 09/ SUBM DATE: 17Aug65/ ORIG REF: 022/  
REF REF: 001

Card 3/3

VOROPAY, P.I., inzh.; KHAYKIN, A.I., inzh.; MATVEYEV, B.M., mekhanik

Effectiveness of the humidification of air entering a piston-type  
compressor. Prom. energ. 19 no.11:26-30 N '64.

(MIRA 18:1)

GOPMAN, Petr Yefimovich; BEREZIN, Vitaliy Borisovich; KHAYKIN,  
Aron Moiseyevich; ZIL'BERSHEYD, M.M., red.; LARIONOV,  
G.Ye., tekhn. red.

[Electrical engineering materials; a handbook] Elektro-  
tekhnicheskie materialy; spravochnik. Moskva, Izd-vo  
"Energia," 1964. 351 p. (MIRA 17:3)

L 22002-66 EWT(m)/EWP(j)/T/ETC(m)-6 *ad/RM*

ACCESSION NR: AP5024507

UR/0191/65/000/010/0040/0042

RTA 621 3 004 15

AUTHOR: Khaykin, A. M., Parksheyan, K. R.

TITLE: Effectiveness of utilizing glass-reinforced plastics in electrical engineering

SOURCE: Plasticheskiye massy, no. 10, 1965, 40-42

TOPIC TAGS: fiberglass, glass cloth, insulating material, glass fabric, insulated wire, electric engineering, electric equipment, polyester plastic, epoxy plastic, silicon plastic, electric insulation, *reinforced plastic glass product polymer, resin.*

ABSTRACT: This review of applications of various glass-reinforced plastics in the electrical industry includes comparisons of 1959 and 1963 consumptions, savings realized by use of these materials, and a few requirement projections. The use of glass fiber, glass cloth, glass cambric, glass textolite and fiberglass made of organo-silicon polymers, epoxy and polyester resins and other electrical insulating materials in cable, winding, armatures, motors, tubogenerators, and electric locomotives is discussed. It is pointed out that there is need for increas-

Card 1/2

L 22002-66

ACCESSION NR: AP5024507

ed production of the various glass fibers and resins for semi-ally and mass pro-  
ducts to assure further progress in the electric and electronic field  
of materials. None

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: 11, 09

NR REF SOV: 000

OTHER: 000

Card 2/2 BK

PROSKUROVSKIY, Ya.S.; KHAYKIN, A.M.

Organization of the production of high-voltage insulators. Stek.  
ker. 19 no.4:37-38 Ap '62. (MIRA 15:8)  
(Electric insulators and insulation)

MARKOV, M.N.; KHAYKIN, A.S.

Optical properties of massive bismuth in the 3-36  $\mu$  region of the spectrum. Opt. i spektr. 9 no.4:487-492 O '60. (MIRA 13:11)  
(Bismuth--Optical properties)



3552

S/051/62/012/003/013/016  
EO32/E314

243950

AUTHORS: Vil'ner, L.D. (Deceased), Rautian, S.G. and  
Khaykin, A.S.

TITLE: On some possible applications of the Fabry-Perot  
interferometer with internal illumination

PERIODICAL: Optika i spektroskopiya, v. 12, no. 3, 1962,  
.437 - 439

TEXT: The authors are concerned with the properties of a  
Fabry-Perot interferometer containing an emitting medium between  
the plates. This type of modification of the Fabry-Perot inter-  
ferometer is of interest in view of the suggestion made by  
A.M. Prokhorov (Ref. 1 - ZhETF, 34, 1658, 1958) that it may be  
suitable for use as a resonator for a quantum oscillator  
(Ref. 2 - N.G. Basov, O.N. Krokhin, Yu.M. Popov - Usp. fiz.  
nauk, 72, 161, 1960). Other applications <sup>also</sup> discussed in the  
present paper. It is assumed that the medium between the plates  
has a finite absorption coefficient and emits uniformly through-  
out its volume. A formula is derived for the intensity

Card 1/2

On some possible applications ..... S/051/62/012/003/013/016  
EO52/E514

distribution and it is shown that the resulting interference pattern takes the form of concentric interference rings. Analysis shows that this arrangement improves the line-to-background ratio and may therefore be suitable for the spectral analysis of very small quantities of impurities and similar applications. There is 1 figure.

SUBMITTED: June 12, 1961

Card 2/2

Maykin, A. S.

REFERENCE OF A MIXTURE

1. Prospekt, v. 12, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 26

[illegible]

1964

responding transition probability  
from the state  $SMI$  to the state  $SMI$

In the case of the  
state  $SMI$  is the state  $SMI$   
plays a relatively small role

~~It is therefore sufficient to assume that~~

the above is one order of magnitude

for suspecting that the

merely to the state  $SMI$

is probably due to the fact that

thank M. I. Goshkevich for his letter of the 10th of

Wagner for his letter of the 10th of

the 10th of the 10th of the 10th

END

SECRET

L 20536-66 EWT(1, IJP(c) AT

ACC NR: AP6008734

SOURCE CODE: UR/0386/66/003/0110/0114

AUTHOR: Khaykin, A. S.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Institut fiziki Akademii nauk SSSR)

TITLE: Investigation of electron collisions with excited neon atoms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 3, 1966, 110-114

TOPIC TAGS: gas laser, electron collision, neon, excited state, nuclear energy level, electron transition

ABSTRACT: The author shows that much of the information necessary to solve various physical problems connected with high-temperature nonequilibrium plasma (low-pressure gas discharge, lasers, ionosphere, astrophysical problems, etc.), especially the effective cross sections for excitation and de-excitation of the atoms as they collide with electrons, when the transitions are between excited states, for which there are no experimental data, can be obtained with the aid of gas lasers. The concrete case of electronic collisions of the type  $Ne\ 4s^2\ 4p^1 + e \rightarrow Ne\ nd^1 + e$  is considered for  $n = 4$  and 5, using a helium-neon laser generating the  $6328\ \text{\AA}$

Card 1/2

L 20536-66

ACC NR: AF6008734

line. The inside diameter of the discharge tube was 3 mm and the mixture pressure  $\sim 1$  torr at a Ne/He ratio  $\approx 1:7$ . The discharge current was varied from 10 to 75 mA the corresponding change in  $n_e$  was from  $4.3 \times 10^{11}$  to  $5.25 \times 10^{12} \text{ cm}^{-3}$ . The electron temperature was  $T_e \approx 7 \text{ ev}$ . Experimental plots are presented for the Ne levels  $4d'$  and  $5d'$  and the calculations are tabulated. It is concluded that in a helium-neon laser discharge the electronic de-excitation of the  $d'$  levels of Ne can play the same role as radiative transitions. Analogous deductions can also be drawn with respect to the role of electronic collisions in the de-excitation of the Ne level  $5s' \frac{1}{2} \frac{1}{2}$ . The experiments show that even a relatively simple model is valid in some cases, and can be used for a direct determination of the effective cross sections of individual electronic processes. The range of applicability of the model can be extended by making the model more complicated. The author is grateful to S. G. Rautian and G. G. Petrash for valuable discussions. Orig. art. has: 2 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 06Dec65/ ORIG REF: 003/ OTH REF: 002

Page 2/2 LJC

ACC NR: AP6024862

SOURCE CODE: UR/0056/66/0051/001/0038/0048

AUTHOR: Khaykin, A. S.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Investigation of the processes of collisions with excited atoms in gas lasers

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 38-48

TOPIC TAGS: nuclear energy level, electron collision, excited state, gas laser, gas discharge plasma

ABSTRACT: The author investigates discharge in a gas the atoms of which have energy levels schematically represented in Fig. 1. It is assumed that population inversion occurs at the  $2 \rightarrow 1$  transition. The appearance of oscillation when the plasma is placed in a resonator leads to an increase in the rate of atomic transition from level 2 to level 1 (in the absence of oscillation this rate is determined by the probability of the spontaneous transition  $A_{21}$ ). The author presents a new method of investigating various processes in the transmission of excitation in the plasma of gas lasers, which makes it possible to measure directly the quantities  $\langle \sigma \rangle$  for electronic (as well as atomic) collisions with excited atoms. The author also shows the feasibility of measuring the probabilities of the radiation transitions between the excited atomic

Card 1/2

ACC NR: AP6024862

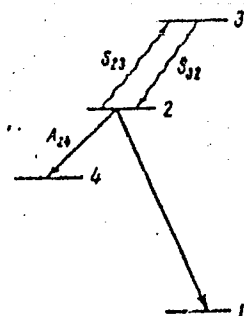


Fig. 1. Schematic of atom levels

levels. In a helium-neon laser ( $\lambda = 6328 \text{ \AA}$ ) experimental measurements were made of the quantity  $\langle \sigma v \rangle$  for the process  $\text{Ne}(5s' \{1/2, 1\}) + e \rightleftharpoons \text{Ne}(nd') + e$  with  $n$  equal to 4 and 5. The author is grateful to T. V. Bychkova for making current reference measurements. The author is extremely grateful to S. G. Rautian for his interest in the work and valuable comments. The author is also grateful to I. I. Sobel'man and G. G. Petrash for discussions and to L. A. Minayeva for providing the results of the calculations of the power of oscillators prior to their publication. Orig. art. has: 1 table, 3 figures, and 27 formulas. [26]

SUB CODE: 20/ SUBM DATE: 01Feb66/ ORIG REF: 007/ OTH REF: 007/ ATD PRESS:

Card 2/2



KHAYKIN, A. Ia.

Method for intracutaenous skin tests. Probl.tub. 39 no.3:  
104-106 '61. (MIRA 14:5)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ye. Rabukhin) TSentral'-  
nogo instituta usovershenstvovaniya vrachev (dir. M.D. Kovrigina)  
i 3-y gorodskoy klinicheskoy tuberkuleznoy bol'nitsy "Zakhar'ino"  
(nauchnyy rukovoditel' - prof. F.I. Levitin, glavnyy vrach V.P.  
Petrik).

(TUBERCULIN)

KHAYKIN, A.Ya.; FRADKIN, V.A.

Results of determining the level of a specific allergy in various forms of pulmonary tuberculosis. Sov. med. 25 no.10:33-37 0 '61.  
(MIRA 15:1)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ye.Rabukhin) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. - M.D.Kovrigina) i 3-y Gorodskoy klinicheskoy tuberkuleznoy bol'nitsy "Zakhar'ino" (nauchnyy rukovoditel' - prof. F.I.Levitin, glavnyy vrach V.P.Petrik).  
(TUBERCULIN TESTING) (TUBERCULOSIS)

KHAYKIN, A.Ya.

Side effects in the treatment of tuberculosis with various  
isonicotinic acid derivatives. Probl. tub. 42 no.3:85-87 '64.  
(MIRA 18:1)

1. Chelyabinskiy oblastnoy protivotuberkuleznyy dispenser  
(glavnyy vrach D.F.Belash).

*KHAYKIN, B.*

LUKINOV, M., inzh.; LEVANDOVSKIY, G., inzh.; KHAYKIN, B., inzh.

Tunnel kilns for small brick factories. Stroi. mat. 4 no.2:13-15  
F '58. (MIRA 11:2)

(Kilns)